

## Students who took Advanced Placement (AP) examinations

*The Advanced Placement (AP) program is associated with a demanding academic curriculum and illustrates the desire of high schools to offer college-level courses to high school students. By participating in the AP program, high school students may acquire college credit for their knowledge of college-level subjects. The number of students per 1,000 12<sup>th</sup>-graders who participated in AP examinations each year shows the level of importance that students, schools, and colleges place on the AP program and how that importance has changed over time.*

- Between 1984 and 1997, the number of students who took AP examinations increased dramatically, rising from 50 to 131 students per 1,000 12<sup>th</sup>-graders. The number of examinees increased for both sexes and all racial-ethnic groups during this period.
- In 1984, equal proportions of male and female students took AP examinations. Between 1984 and 1997, the number of females who took the examinations rose at a faster rate than did the number of males who took the examinations. In 1997, 145 females compared with 117 males per 1,000 12<sup>th</sup>-graders took AP examinations.
- In 1997, whites were more likely than blacks or Hispanics to take AP examinations in all subject areas, with the exception of foreign languages. Hispanics were at least three times as likely to take a foreign language AP examination as whites.

### Number of U.S. students<sup>1</sup> who took AP examinations (per 1,000 12<sup>th</sup>-graders), by sex and race-ethnicity: 1984-97

Sex and race-ethnicity	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Total<sup>2</sup></b>	<b>50</b>	<b>59</b>	<b>64</b>	<b>66</b>	<b>81</b>	<b>88</b>	<b>100</b>	<b>103</b>	<b>109</b>	<b>117</b>	<b>115</b>	<b>125</b>	<b>131</b>	<b>131</b>
Sex														
Male	50	61	65	68	76	86	101	96	102	108	101	111	117	117
Female	50	58	63	65	85	90	98	111	117	127	129	140	144	145
Race-ethnicity														
White	48	60	62	63	82	92	103	107	112	115	116	125	133	132
Black	8	11	12	13	21	20	26	25	26	31	32	37	32	37
Hispanic	24	21	27	30	48	54	54	67	68	80	63	75	74	85

### Number of AP examinations<sup>1</sup> taken in the United States and the number of examinations with scores of 3 or higher (per 1,000 12<sup>th</sup>-graders), by subject area, sex, and race-ethnicity: 1997

Sex and race-ethnicity	Number of AP examinations taken						Number of examinations with scores of 3 or higher					
	Social studies	English	Foreign language	Calculus	Computer science	Science	Social studies	English	Foreign language	Calculus	Computer science	Science
<b>Total<sup>2</sup></b>	<b>59</b>	<b>55</b>	<b>17</b>	<b>33</b>	<b>3</b>	<b>35</b>	<b>35</b>	<b>38</b>	<b>12</b>	<b>20</b>	<b>1</b>	<b>23</b>
Sex <sup>3</sup>												
Male	62	42	13	36	5	41	40	28	9	24	3	28
Female	70	70	23	30	1	34	40	48	17	17	0	20
Race-ethnicity												
White	61	58	12	33	2	34	38	41	7	21	1	22
Black	15	17	3	7	1	8	5	6	1	2	0	2
Hispanic	26	27	41	12	1	12	11	12	36	6	0	5

<sup>1</sup> Includes all participation by 11<sup>th</sup>- and 12<sup>th</sup>-graders. See the supplemental note to this indicator for further discussion.

<sup>2</sup> Included in the total but not shown separately are students from other racial-ethnic groups.

<sup>3</sup> The number of examinations taken by males and females includes a small number of examinations taken by 9<sup>th</sup>-graders, 10<sup>th</sup>-graders, college students, and others (9 percent of all students who took AP examinations in 1997).

NOTE: Included in this analysis are students who participated in the United States only. Students scoring 3 or higher on an AP examination

usually receive college credit. Since, on average, AP candidates take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and a discussion of the calculations for this analysis.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports* (Copyright © 1984-97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

**Table S14(a) Standard errors for the first text table in *Indicator 14***

Sex and race-ethnicity	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Total</b>	<b>1.2</b>	<b>1.4</b>	<b>1.5</b>	<b>1.4</b>	<b>2.0</b>	<b>2.2</b>	<b>2.5</b>	<b>2.9</b>	<b>2.7</b>	<b>2.8</b>	<b>2.4</b>	<b>2.7</b>	<b>2.9</b>	<b>2.8</b>
Sex														
Male	1.6	2.1	2.1	2.1	2.6	3.0	3.8	3.8	3.5	3.7	3.0	3.3	4.0	3.5
Female	1.7	1.9	2.0	1.9	3.1	3.2	3.4	4.5	4.1	4.3	4.0	4.3	4.9	4.3
Race-ethnicity														
White	1.3	1.7	1.7	1.6	2.4	2.7	3.1	3.6	3.3	3.3	3.0	3.3	3.7	3.4
Black	0.6	0.8	0.8	0.8	1.7	1.4	2.0	2.0	1.8	2.2	1.8	2.1	1.8	2.1
Hispanic	3.3	2.5	3.4	3.5	7.4	7.9	6.3	9.2	7.7	9.3	4.2	5.2	4.9	5.8

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years (Copyright © 1984-97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

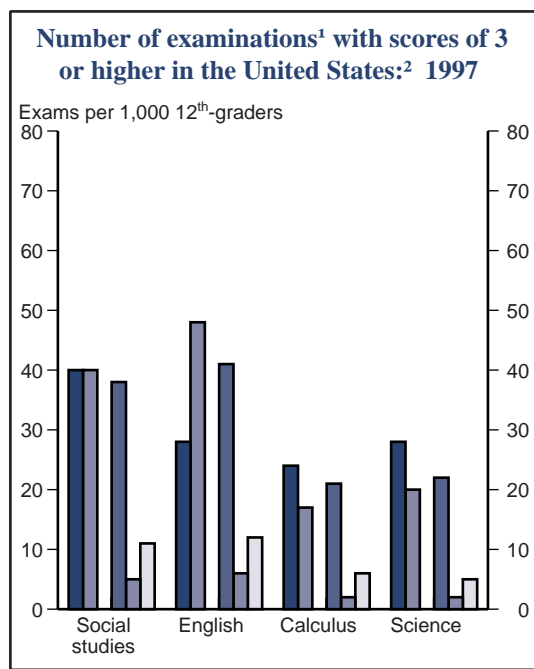
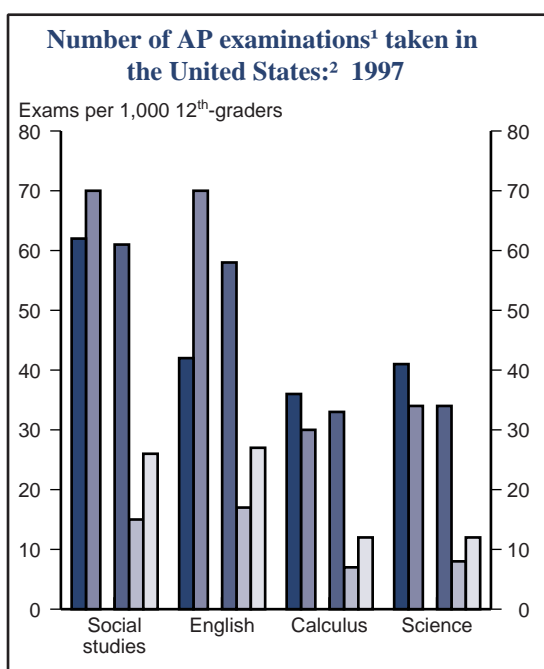
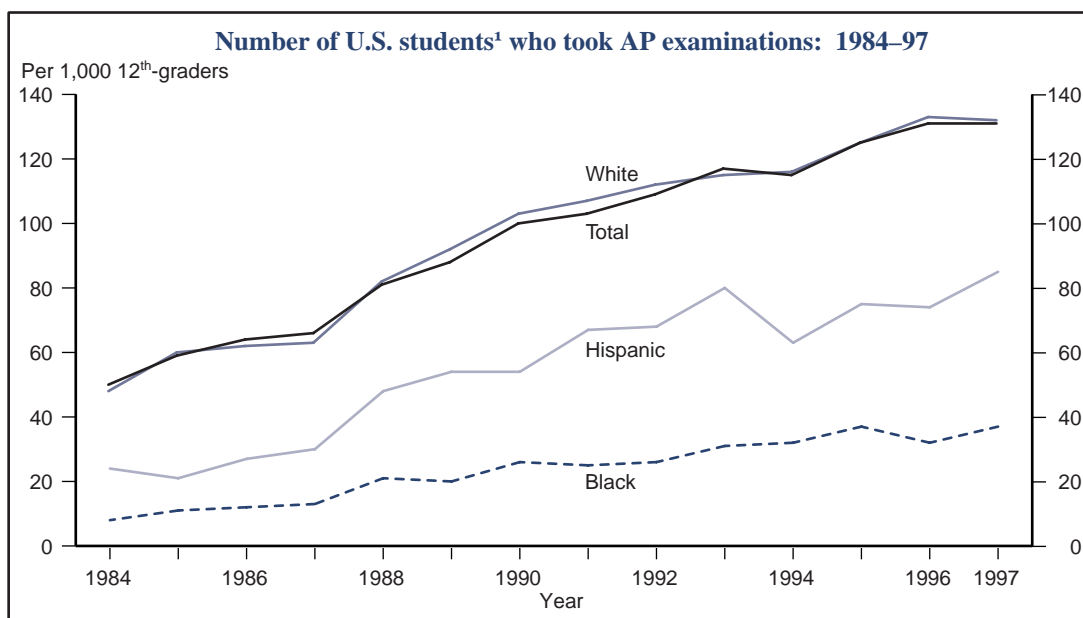
**Table S14(b) Standard errors for the second text table in *Indicator 14***

Sex and race-ethnicity	Number of AP examinations taken						Number of examinations with scores of 3 or higher					
	Social studies	English	Foreign language	Calculus	Computer science	Science	Social studies	English	Foreign language	Calculus	Computer science	Science
<b>Total</b>	<b>1.2</b>	<b>1.2</b>	<b>0.4</b>	<b>0.7</b>	<b>0.1</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.3</b>	<b>0.4</b>	<b>*0.0</b>	<b>0.5</b>
Sex												
Male	1.9	1.3	0.4	1.1	0.1	1.2	1.2	0.9	0.3	0.7	0.1	0.9
Female	2.1	2.1	0.7	0.9	*0.0	1.0	1.2	1.4	0.5	0.5	*0.0	0.6
Race-ethnicity												
White	1.6	1.5	0.3	0.8	0.1	0.9	1.0	1.1	0.2	0.5	*0.0	0.6
Black	0.8	0.9	0.2	0.4	*0.0	0.4	0.3	0.3	0.1	0.1	*0.0	0.1
Hispanic	1.8	1.8	2.8	0.8	0.1	0.8	0.8	0.9	2.5	0.4	*0.0	0.4

\* Standard errors less than 0.05 are rounded to 0.0.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports* (Copyright © 1997 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

# Students who took Advanced Placement (AP) examinations



■ Male ■ Female ■ White ■ Black ■ Hispanic

<sup>1</sup> Includes all participation by 11<sup>th</sup>- and 12<sup>th</sup>-graders. See the supplemental note to this indicator for further explanation.

<sup>2</sup> The number of examinations taken by males and females includes a small number of examinations taken by 9<sup>th</sup>-graders, 10<sup>th</sup>-graders, college students, and others (9 percent of all students who took AP examinations in 1997).

NOTE: Included in this analysis are students who participated in the United States only. Students scoring 3 or higher on an AP examination usually receive college credit. Since, on average, AP candidates

take more than one examination, there is not a 1:1 ratio between candidates and examinations. See the supplemental note to this indicator for a description of AP course categories and an explanation of the calculations for this analysis.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports* (Copyright © 1984-97 by the College Entrance Examination Board. All rights reserved.). U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

## Advanced Placement (AP) Examinations

The Advanced Placement (AP) examinations are offered to high school students annually to give them an opportunity to demonstrate college-level achievement. The AP program is open to all students. However, it is advised that only students who have studied beyond the normal secondary school level take these examinations. High school students take the examinations voluntarily; however, several states have legislation that supports and encourages participation in the AP program.

It should be noted that while the AP program is open to all students, not all schools participate. This means that schools may not offer courses to prepare students for the AP examinations or administer them. If students wish, they may take AP examinations at a school other than the one they attend if the school attended does not administer AP examinations. However, whether a school offers AP courses and examinations will affect the likelihood of whether a student participates in the AP program. Students who attend schools that offer AP courses and examinations are probably more likely to take AP examinations than students who attend schools that do not participate in the AP program.

Data used in the denominators for this analysis were taken from the October Current Population Survey (CPS) and should not be compared with data from *The National Education Goals Report*. In this analysis, the number of 11<sup>th</sup>- and 12<sup>th</sup>-graders who took AP examinations and the number of examinations taken by these students, as reported by The College Board, were compared to populations of 12<sup>th</sup>-graders as defined by the October CPS. This comparison provides an estimate of the average number of students who participate in the AP program for a single cohort and the average number of AP examinations a single cohort takes because students rarely take any given AP examination (e.g., biology) in both the 11<sup>th</sup> and 12<sup>th</sup> grades.

Enrollment figures from the CPS include both public and private school data, which are somewhat different from the data shown in *The National Education Goals Report*. Enrollment figures from *The National Education Goals Report* are based on the Common Core of Data, which does not include data from private schools, but produces private school enrollment data by multiplying the public school figures by a private school enrollment adjustment factor. As a result, data in this analysis are not directly comparable to data found in the *Goals* report.

### Subject definitions

The following are the specific subjects that comprise the AP examination subject areas presented in this analysis:

*Social Studies:* U.S. History, European History, U.S. Government and Politics, Comparative Government and Politics, and Psychology;

*English:* English Language and Composition, and English Literature and Composition;

*Foreign Language:* French Language, French Literature, German Language, Latin/Vergil, Latin Literature, Spanish Language, and Spanish Literature;

*Calculus:* Calculus AB and Calculus BC;

*Computer Science:* Computer Science A and Computer Science AB;

*Science:* Biology, Chemistry, Physics B, Physics C (mechanical), and Physics C (electricity and magnetism).

### Examinations

Most of the AP examinations contain multiple choice and free-response sections. The examinations are graded based on scores from both types of responses. The program's examinations are criterion- rather than normed-referenced, with cut scores established at four different points along these scales to designate a grade of 5, 4, 3, 2, or 1 (grade of 5: extremely well qualified; grade of 4: well qualified; grade of 3: qualified; grade of 2: possibly qualified; and grade of 1: no recommendation). The grades are determined by the chief readers who rely on their subject matter expertise, statistical equating data, and data from comparability studies. Cut scores frequently vary from year to year for each examination, reflecting changes in the level of examination difficulty. Therefore, The College Board does not recommend using grade data for trend analysis. Grades of 3 and above are usually accepted for college credit and advanced placement at participating colleges and universities, although credit varies among institutions.

SOURCE: The College Board, *A Guide to the Advanced Placement Program*, 1992.